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CLAIMS

- 1. An implantable medical device for implantation into a patient, comprising: a battery having an electrode that develops a resistive film; a low deformation-rate capacitor capable of storing a charge from the battery, the capacitor requiring few or no periodic discharges of the battery for reformation; and means for periodically discharging energy from the battery into the low deformation-rate capacitor to reduce film buildup on the electrode.
- 2. An implantable medical device according to claim 1, further comprising a lead for sensing electrical signals of a patient via at least one electrode operatively coupled to the lead.
- An implantable medical device according to claim 2, further comprising a 3. status system for monitoring heart activity of the patient through the lead.
- An implantable medical device according to claim 3, further comprising a therapy delivery system for delivering electrical energy through the lead to a heart of the patient.
- An implantable medical device according to claim 1, further comprising a 5. means for determining time elapsed since a therapy was delivered to a patient or since the battery was at least partially discharged.
- An implantable medical device according to claim 1, wherein the battery 6. discharge is greater than about 2.5 Joules.
- An implantable medical device according to claim 1, further comprising a 7. means for optimizing the battery discharge.

- An implantable medical device according to claim 7, further comprising a 8. means for optimizing the time between discharging the battery.
- 9. An implantable medical device according to claim 8, wherein the means for optimizing the battery discharge is dependant upon voltage delay.
- An implantable cardioverter defibrillator comprising:
 - a lead for applying electrical energy to the patient;
- a battery having an electrode for powering the implantable cardioverter defibrillator, the battery having an electrode that develops a film on it over time due to a lack of battery discharge;
- an ICD status system for monitoring heart activity of the patient through the lead;
- a therapy delivery system for delivering electrical energy through the lead to a heart of the patient;
- a capacitor capable of storing a charge from the battery, the capacitor requiring no periodic discharges of the battery for reformation; and
- means for periodically discharging the battery to reduce film buildup on the electrode.
- An implantable cardioverter defibrillator according to claim 10, further comprising a means for determining elapsed time since a therapy was delivered to a patient or since the battery was discharged to reduce film buildup.
- 12. An implantable cardioverter defibrillator according to claim 10, wherein the battery discharge is greater than about 2.5 Joules.
- An implantable cardioverter defibrillator according to claim 10, further comprising a means for optimizing the battery discharge.

- 14. An implantable cardioverter defibrillator according to claim 13, further comprising a means for optimizing the time between discharging the battery.
- 15. An implantable cardioverter defibrillator according to claim 14, wherein the means for optimizing the battery discharge is dependant upon voltage delay.
- 16. A method of exercising a battery of an implantable medical device, comprising:

determining whether a film is disposed on a portion of an electrode of a battery; and

discharging the battery a sufficient amount to reduce the film disposed on a portion of the electrode of the battery.

- 17. A method according to clam 16, further comprising: optimizing energy used during exercising the battery.
- 18. A method according to claim 17, further comprising: optimizing a time period, wherein said time period is defined as the amount of time elapsed between consecutive exercising of the battery.
- 19. A method according to claim 17, wherein the energy used during exercising the battery is optimized based upon voltage delay during charging of a capacitor.
- 20. A method according to claim 17, wherein the energy used during exercising the battery is optimized based upon discharging of the battery.
- 21. A method according to claim 16, wherein the battery supplies energy to a capacitor or an electrical resistor to exercise the battery.

- 22. A method according to claim 21, wherein the capacitor charged by the battery subsequently powers the device.
- 23. A method according to claim 16, wherein the battery is discharged through a resistive load to exercise the battery.
- 24. A method of exercising a battery of an implantable cardiac defibrillator, comprising:

determining a period of time elapsed since a cardiac therapy was administered to a patient or since a battery exercising session was performed; resuming normal implantable cardiac defibrillator operation if the last therapy or exercising session was less than a predetermined amount of time; and charging a capacitor with a predetermined amount of energy if the last therapy or exercising session was performed a greater time than the predetermined time.

- 25. A method according to claim 24, further comprising the step of determining whether the cardiac therapy needs to be administered.
- 26. A method according to claim 25, further comprising: instructing a therapy delivery system to charge the capacitor to deliver the cardiac on a scheduled basis.
- 27. A method according to claim 24, further comprising the step of minimizing the amount of energy removed from the battery based on a voltage delay.
- 28. A method according to claim 27, wherein a processor executes a software module to optimize energy removal from the battery.

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- 29. A method according to claim 24, further comprising the step of minimizing the amount of energy removed from the battery based on a capacitor charge time, wherein said capacitor charge time comprises a period of time during which the capacitor is charged to a maximum or rated voltage of said capacitor.
- 30. A method according to claim 29, further comprising the step of determining whether the capacitor was charged to the maximum or rate voltage of said capacitor.
- 31. A computer readable medium for storing instructions for performing a method of exercising a battery of an implantable cardiac defibrillator, comprising:

instructions for determining a period of time elapsed since a cardiac therapy was administered to a patient or since a battery exercising session was performed;

instructions for resuming normal implantable cardiac defibrillator operation if the last therapy or exercising session was less than a predetermined amount of time; and

instructions for charging a capacitor with a predetermined amount of energy if the last therapy or exercising session was performed a greater time than the predetermined time.

- 32. A medium according to claim 31, further comprising instructions for determining whether the cardiac therapy needs to be administered.
- 33. A medium according to claim 32, further comprising instructions for instructing a therapy delivery system to charge the capacitor to deliver the cardiac on a scheduled basis.

- 34. A medium according to claim 31, further comprising instructions for minimizing the amount of energy removed from the battery based on a voltage delay.
- 35. A medium according to claim 34, wherein a remote processor executes the instructions for optimizing energy removal from the battery.
- 36. A medium according to claim 31, further comprising instructions for minimizing the amount of energy removed from the battery based on a capacitor charge time, wherein said capacitor charge time comprises a period of time during which the capacitor is charged to a maximum or rated voltage of said capacitor.
- 37. A medium according to claim 36, further comprising instructions for determining whether the capacitor was charged to the maximum or rated voltage of said capacitor.